

| | |
|------------------------|--------------------------|
| Application Number | 09/837,701 |
| Filing Date | April 17, 2001 |
| First Named Inventor: | Xiaodong Li |
| Group Art Unit | 2681 <i>2684</i> |
| Examiner Name | Unassigned <i>Conlee</i> |
| Attorney Docket Number | 005158.P007X |

| | | | |
|-------|---|----|---|
| Sheet | 2 | of | 2 |
|-------|---|----|---|

| Examiner Initials* | Cite No¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published | T^e |
|---------------------------|----------------------------|---|----------------------|
| PZ | Y | GRUENHEID, R. et al.: "Adaptive Modulation and Multiple Access for the OFDM Transmission Technique", Wireless Personal Communications, Kluwer Academic Publishers, NL, Vol. 13, NR. 1/2, Year 2000, pages 5-13 XP000894156, ISSN: 0929-6212. | H LISTED |
| | Z | MOTEGI, M. et al.: "Optimum Band Allocation According to Subband Condition for BST-OFDM" 11 th IEEE International Symposium on Personal Indoor and Mobile Radio Communications, vol. 2, 18-21 September 2000, pages 1236-1240, XP002213669, Piscataway, NJ, USA, ISBN: 0-7803-6463-5. | |
| | AA | KAPOOR, S. et al.: "Adaptive Interference Suppression in Multiuser Wireless OFDM Systems Using Antenna Arrays" IEEE Transactions on Signal Processing, vol. 47, no. 12, December 1999, pages 3381-3391, XP000935422, IEEE, New York, USA, ISSN: 1053-587X. | |
| | BB | YE LI, et al.: "Clustered OFDM with channel estimation for high rate wireless data", Mobile Multimedia Communications, 1999. (MOMUC '99). 1999 IEEE International Workshop on San Diego, CA, USA, IEEE, US, 15 November 1999, pages 43-50, XP010370695, ISBN: 0-7803-5904-6. | |
| | CC | NOGUEROLES, R. et al.: "Improved Performance of a Random OFDMA Mobile Communication System" Vehicular Technology Conference, 1998. VTC 98. 48 th IEEE Ottawa, Ontario, Canada, 18-21 May 1998, (1998-05-18), pages 2502-2506, XP010288120, ISBN: 0-7803-4320-4. | |
| | DD | KINUGAWA, Y. et al.: "Frequency and Time Division Multiple Access with Demand-Assignment Using Multicarrier Modulation for Indoor Wireless Communications Systems", IEICE Transactions on Communications, Institute of Electronics Information and Comm. Eng. Tokyo, Japan, vol. E77-B, NR. 3, March 1994, pages 396-402, XP000451014, ISSN: 0916-8516. | |
| | | RECEIVED | |
| | | NOV 06 2002 | |
| | | Technology Center 2600 | |
| | | | |
| | | | |

**Examiner
Signature**

J Cortes

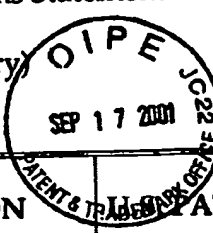
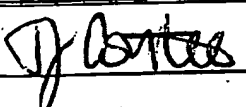
Date
Considered

2/10/8

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

¹Unique citation designation number. ²Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:** Assistant Commissioner for Patents, Washington, DC 20231.

| | | | | | | | |
|---|--|---|--------------------|---|-------|----------------------------------|------------------|
| Form PTO-1449 (Modified) | | | | Atty Docket No.: 005158.P007X | | Serial No.: 09/837,701 | |
| List of Patents and Publications Statement (Use several sheets if necessary) | | | | Applicants: Li et al. | | | |
| Filing Date: April 17, 2001 | | | | | | | |
| <div style="display: flex; justify-content: space-between;"> <div>REFERENCE DESIGNATION</div> <div>  </div> </div> | | | | | | | |
| PATENT DOCUMENTS | | | | | | | |
| Exam. Initial | | Date | Document Number | Name | Class | Sub- Class | Filing Date |
| JS | | 05/23/00 | 6,067,290 | Paulraj et al. | 370 | 329 | 07/30/99 |
| | | 05/16/00 | 6,064,694 | Clark et al. | 375 | 224 | 09/30/97 |
| | | 05/16/00 | 6,064,692 | Chow | 375 | 219 | 06/20/97 |
| | | 04/18/00 | 6,052,594 | Chuang et al. | 455 | 450 | 04/30/97 |
| | | 03/21/00 | 6,041,237 | Farsakh | 455 | 450 | 04/02/98 |
| | | 12/21/99 | 6,005,876 | Cimini, Jr. et al. | 370 | 525 | 09/24/96 |
| | | 10/26/99 | 5,973,642 | Li et al. | 342 | 378 | 04/01/98 |
| | | 09/21/99 | 5,956,642 | Larsson et al. | 455 | 449 | 11/25/96 |
| FOREIGN PATENT DOCUMENTS | | | | | | | |
| No. | | Document No. | Date | Country | Name | Class | Sub- Class |
| | | | | | | | Trans- lation |
| OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.) | | | | | | | |
| JS | | BENDER et al., CDMA/HDR: A Bandwidth-Efficient High-Speed Wireless Data Service for Nomadic Users, IEEE Communications Magazine, July 2000, pp. 70-87. | | | | | |
| | | TSOULOS, G.V., Smart Antennas For Mobile Communication Systems: Benefits And Challenges, Electronics & Communication Engineering Journal, April 1999, pp. 84-94. | | | | | |
| | | SHAD et al., Indoor SDMA Capacity Using a Smart Antenna Basestation, 1997 IEEE, pp. 868-872. | | | | | |
| | | FARSAKH, CHRISTOF and NOSSEK, JOSEF A., On the Mobile Radio Capacity Increase Through SDMA, no date (after 1997). | | | | | |
| | | FRULLONE et al., PRMA Performance in Cellular Environments with Self-Adaptive Channel Allocation Strategies, IEEE Transactions on Vehicular Technology, November 1996, pp.657-665 Vol. 45, No. 4. | | | | | |
| | | XU, GUANGHAN and LI, SAN-QI, Throughput Multiplication of Wireless Lans for Multimedia Services: SDMA Protocol Design, 1994 IEEE, pp. 1326-1332. NO MONTH LISTED | | | | | |
| | | WARD, JAMES and COMPTON, R. TED, JR., High Throughput Slotted ALOHA Packet Radio Networks with Adaptive Arrays, IEEE Transactions on Communications, March 1993, pp. 460-470, Vol. 41, No. 3. | | | | | |
| Examiner  | | | | Date Considered 1/26/01 | | | |
| EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant | | | | | | | |

NO MONTH LISTED



PTO/SB/08A (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U. S. Patent and Trademark Office: U. S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

| | | | | | |
|---|---|----|---|--------------------------|------------------------|
| Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary) | | | | Complete if Known | |
| | | | | Application Number | 09/837,701 |
| | | | | Filing Date | April 17, 2001 |
| | | | | First Named Inventor | Xiaodong Li |
| | | | | Art Unit | 2686 |
| | | | | Examiner Name | Joy Contee |
| Sheet | 1 | of | 1 | Attorney Docket Number | 68144/P014CP1/10502151 |

| U. S. PATENT DOCUMENTS | | | | | |
|------------------------|--------------------------|--|--------------------------------|--|--|
| Examiner Initials* | Cite No. ¹ | Document Number | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| | | Number-Kind Code ² (if known) | | | |
| | | | | | |

| FOREIGN PATENT DOCUMENTS | | | | | | |
|--------------------------|--------------------------|---|--------------------------------|--|--|----------------|
| Examiner Initials* | Cite No. ¹ | Foreign Patent Document | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | T ³ |
| | | Country Code ² -Number ⁴ -Kind Code ⁵ (if known) | | | | |
| | BA | DE 198 00 953 | July 29, 1999 | Siemens AG | | |

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See attached Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the application number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

| NON PATENT LITERATURE DOCUMENTS | | | |
|---------------------------------|--------------------------|--|----------------|
| Examiner Initials* | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ² |
| | | | |
| | CA | Wong et al. "Multiuser OFDM with Adaptive Subcarrier, Bit, and Power Allocation", IEEE Journal on Selected Areas in Communications. IEEE, New York, US, 1999, Vol. 17, NR. 10, pp. 1747-1758 NO MONTH LISTED | |
| | CB | Mexican Office Action issued for PA/a/2003/005311 dated March 31, 2006. | |

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

| | | | |
|----------------|--|--------------------|--|
| 25649323 .1 | | Date Considered | |
|----------------|--|--------------------|--|